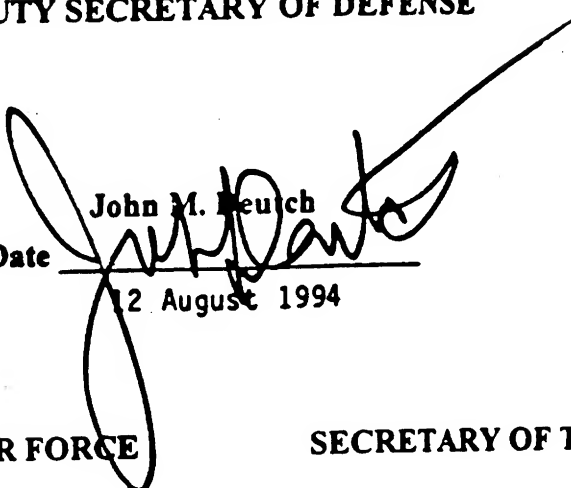



**CHARTER**  
**for the**  
**JOINT ADVANCED STRIKE TECHNOLOGY**  
**(JAST)**  
**PROGRAM**

**Approved by:**

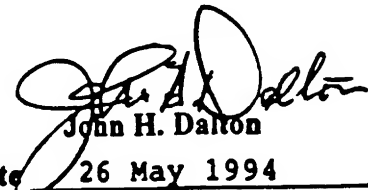
**DEPUTY SECRETARY OF DEFENSE**

  
John M. Heusch  
Date 12 August 1994

**SECRETARY OF THE AIR FORCE**

  
Sheila E. Widnall  
Date MAR 30 1994

**SECRETARY OF THE NAVY**

  
John H. Dalton  
Date 26 May 1994

#795

# **CHARTER FOR THE JOINT ADVANCED STRIKE TECHNOLOGY (JAST) PROGRAM**

## **BACKGROUND**

The Under Secretary of Defense for Acquisition and Technology (USD(A&T)) Memorandum of 11 August 1993 formally requested a joint Air Force/Navy plan to implement the Joint Advanced Strike Technology (JAST) Program as a comprehensive advanced technology effort to prepare the way for the next generation of strike weapon systems. On 1 September 1993, the Secretary of Defense briefed OSD's Bottom-Up Review and formally announced his intent to cancel the Navy AFX and Air Force MRF programs and create the JAST Program. On 12 October 1993, USD(A&T) approved the initial joint service plan for the JAST Program. On 14 October 1993, USD(A&T) sent letters to the Chairmen and the Ranking Minority Members of the Defense Committees announcing his approval of the joint service plan and soliciting their support. On 9 December 1993, the Deputy Secretary of Defense endorsed the JAST Program strategies. On 27 January 1994, USD(A&T) formally established the JAST Program.

To ensure future tactical air capability at affordable costs, the DOD Bottom-Up Review determined that the Department should, in the near term, only make those choices needed to meet current deficiencies and to enable future options. Therefore, the JAST Program will bring the Navy, Air Force, and Marine Corps together to work jointly at reducing costs of future strike warfare concepts by jointly maturing/transitioning advanced technologies, components, and processes. The JAST Program will develop, validate, and demonstrate operational concepts responsive to user defined requirements. The JAST Program will "set the stage" within government and industry to reduce cost and risk such that effective and affordable weapon systems can rapidly enter development. The vision of the JAST Program is a joint services team creating the building blocks for affordable, successful development of next generation strike weapon systems.

## **PURPOSE/MISSION**

The JAST Program is chartered to facilitate evolution of fully developed and validated operational requirements, proven operational concepts and mature, demonstrated technologies to support successful development and production of next generation strike weapon systems for the USN, USMC, USAF and our allies.

The JAST Program will provide focus and direction to future strike technology by applying a strategy-to-task-to-technology analytical process involving an integrated team of users and developers. User defined future operational needs will determine which technologies and demonstrations will be pursued and funded. The JAST Program will serve as the critical link between the requirements community, the technology community, and an eventual acquisition program office(s). The JAST Program Director will facilitate a marriage between the Services' requirements communities in order to assist them in developing a set of joint requirements to guide the effort, and evolve these requirements over time consistent with technology's ability to support them.

The breadth of potential JAST Program investments spans: common component development (e.g., engines, avionics, and ground test and training equipment; modern precision guided munitions, advanced mission planning techniques, etc); advanced concept technology demonstrations; and manned and unmanned system concepts. The JAST Program will interact with existing organizations in these areas to focus investments, conduct concept integration and demonstrations as needed to mature both the technology and the operational concepts.

The JAST Program will focus on reducing both cost and risk of technologies, processes, and concepts to meet future joint operational needs. The goal is to demonstrate technologies and manufacturing processes that will reduce life cycle costs of future systems, and promote application of commercial practices and technologies where appropriate. The JAST Program will jointly transition high leverage technologies, components, and processes to facilitate the Services proceeding with formal, system level development of affordable next generation strike weapon systems.

The emphasis is on maturing and demonstrating those technologies, components, concepts and manufacturing processes which optimize commonality between the Services' next generation strike weapon systems, through prudent use of design modularity and common components. While the silhouettes may conceivably need to look different for operational needs, the various concepts should have a high degree of cost commonality. In concert with OSD, the Services, and other agency technology developers (NASA, ARPA, etc.), the JAST Program will serve as the primary DOD authority for:

- Focusing investments with the paramount objective of reducing future strike systems development, procurement, and support costs;

- Triggering unprecedented levels of joint analysis and simulation, spanning the spectrum from battlefield campaigns to drawing board concepts;
- Identifying and leveraging commercial sector technologies and processes for application to strike technologies and manufacturing processes;
- Prioritizing DOD's investments in technology projects related to strike warfare;
- Constructing, in concert with the user communities, strike technology development roadmaps;
- Initiating focused technology/concept demonstrations with the objective of assessing operational utility and payoff, validating their technical maturity, and developing an understanding of the residual risk of transitioning to weapon system development;
- Performing tradeoff analyses of critical user defined performance parameters for the next generation strike systems;
- Identifying how to apply "lean enterprise" concepts to the development and production of next generation strike weapon systems; and
- Identifying dual use applications for those technologies and processes developed under the JAST Program.

The JAST Program Office will not transition to a future program office, but if successful may continue as a technology program to focus on high priority technology development areas of interest, as directed by USD(A&T). The initial JAST Program window for investments is on technologies and processes which can be brought to a sufficient level of maturity to permit transition to a formal program(s) to support weapon system fielding in approximately 2010.

## **MANAGEMENT AUTHORITY AND RESPONSIBILITY**

### **A. Scope**

The JAST Program is a joint service organization, staffed by Air Force, Navy, and Marine Corps personnel. The JAST Program Office shall serve as the focal point for developing and implementing a strategy that focuses the future strike warfare operational needs of the requirements community and integrates those needs with the technology programs of DOD, ARPA, NASA, etc.

The JAST Program Director has authority to interact with OSD, Service, and other agency technology organizations to focus and integrate technology activities in support of responsibilities listed in this charter. Across the spectrum of JAST Program efforts, the Director will seek out and apply streamlined and innovative practices. Where appropriate, he will coordinate with the Under

Secretary of Defense for Acquisition Reform (USD(AR)) to obtain waivers or exceptions to statutory requirements.

In supporting the JAST Program, Service Secretaries will provide resources and ensure compliance with this charter. Specifically, the JAST Program resides under the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN(RDA)) for Navy and Marine Corps support and under the Assistant Secretary of the Air Force for Acquisition (SAF/AQ) for Air Force support. The Services will support a two-star level (or equivalent) Advisory Group to act as a sounding board and support forum for the JAST Program Director and the Service Acquisition Executives (SAEs). Additionally, an Executive Committee chaired by USD(A&T) will be supported by the Services to act as an advisory body to the USD(A&T) on the JAST Program. The Office of Tactical Warfare Programs is designated Office of Primary Responsibility within OUSD (A&T) for management and administration of the JAST Program. Refer to the Organization and Staffing section for details.

#### B. Business Operations

The JAST Program will budget and execute funding for investments approved by the USD(A&T). The FY1994 Defense Appropriations Act provided Navy funding for the initiation of JAST. The Navy and Air Force have budgeted equal funding within Service TOAs across the FYDP beginning in FY1995. Funding is RDT&E Category 6.3B in nature, however the JAST Program will have latitude to fund efforts across the development spectrum and for Program Office functions (e.g. training, travel, office facilities, administrative/technical support, etc). The JAST Program is not an "Acquisition Program" as defined in DODI 5000. For documentation and reporting purposes, the JAST Program will summarize activities in a JAST Program Annual Report & Master Plan (a single document). The JAST Program will coordinate with established comptroller and accounting organizations in the Washington, DC metropolitan area for appropriation accounting and funds administration functions.

The JAST Program is a joint service program with no executive service. Since the Navy and Air Force program elements that fund the program are inextricably linked, the programming and comptroller organizations of the respective Services should be especially mindful of the ramifications of potential funding changes by either Service. Care should be taken to ensure that consistency is maintained between the Services' budget documentation as it proceeds through the respective Service chains.

### C. Contracting Activities

The JAST Program is authorized to establish an in-house contracting ability (to include source selection authority), although it is envisioned that most activities will be passed to the Services for execution. When asking the Services to execute activities, the JAST Program will provide written direction and appropriate funding. Close coordination with USD(AR) will be maintained to provide a resource organization that can implement pilot efforts.

### D. Security

The JAST Program Director will establish and maintain a Program Protection function to ensure security costs and administrative requirements are reduced to the minimum required to protect the critical enabling technologies handled by the JAST Program Office. The JAST Program Director will implement appropriate security measures for access to special programs.

OSD and the Services will provide Technical Security and Foreign Intelligence Threat support to the JAST Program Director.

## **RELATIONSHIP TO OTHER PROGRAMS AND ORGANIZATIONS**

In the accomplishment of assigned tasks, the JAST Program will interact with all applicable DOD, other agency, and industry technology organizations. The JAST Program Director will be a key participant in the Services' Project Reliance effort to assist in deconflicting efforts and to provide an operational focus to their investment plans. Similar interaction will be accomplished with DDR&E, DUSD (A&T) and supporting staffs. Of primary importance is close communication and cooperation with the user/operator communities to ensure that both ongoing and recommended technology development have operational utility. The JAST Program Director and his staff are to be afforded rapid insight into all applicable planned and ongoing efforts, including special access initiatives.

The Services will access key JAST Program personnel to applicable special access programs. The JAST Program Security Director will assist the Services in jointly developing procedures for protection of special access program information maintained by the JAST Program. The Services will provide a focal point to resolve special access concerns.

## **REPORTING AND INFORMATION REQUIREMENTS**

The JAST Program Director reports to the opposite Service Acquisition Executive. An Advisory Group, as depicted in Attachment 1, is established to provide advice on Service related matters and to provide support to the Program Director. An Executive Committee (EXCOM), as depicted in Attachment 1, functions in an advisory capacity to USD(A&T) and the Service Acquisition Executives.

The JAST Program Director will not be required to pre-brief or coordinate through the multitude of supporting staffs of the members of the Advisory Group and EXCOM. Similarly, briefings will be presented to the Advisory Group and EXCOM as a group. The JAST Program Director will prepare both an agenda and issue papers, and distribute them to the designated members of the Advisory Group and the EXCOM prior to scheduled reviews. Informal meetings with the SAEs and USD(A&T) are encouraged.

The JAST Program is a non-ACAT program. Therefore, the principal document of the JAST Program will be an Annual Report & Master Plan. The Annual Report & Master Plan consists of a Summary of current and previous efforts, a Technology Roadmap to cover the FYDP, and a proposed Investment/Execution Plan, with detailed justification for the next budget year. Decisions made by the USD(A&T) will be incorporated into JAST activities and reflected in the Annual Report & Master Plan. Comments made by the Advisory Group will not be taken as directive in nature but will be addressed in the briefing to the SAE for consideration and potential inclusion prior to review by the EXCOM.

The JAST Program will endeavor to be a paperless operation. All organizations interacting with the JAST Program will assist this goal by facilitating acceptance of electronic media reports, data, or documents.

## **ORGANIZATION AND STAFFING**

The JAST Program will be a jointly manned activity. It will be staffed by Air Force, Navy, and Marine Corps personnel, with allowances for an Army liaison if later deemed appropriate. The program office will be located in the Washington, DC area. The JAST Program Director

will report to USD(A&T) through the opposite SAE. For performance or fitness report purposes, the JAST Program Director will be rated by the opposite SAE and forwarded to his service Vice Chief for review. Details of the organizational reporting chain and the composition of the EXCOM and Advisory Group are contained in Attachment 1.

The JAST Program Director will be an O-8 from one Department and the Deputy will be an O-7 from the opposite Department. These positions will periodically alternate between the Department of the Air Force and Department of the Navy. The Services may, if so desired, balance the O-8 and O-7 positions with operator and acquisition personnel, with final approval of USD(A&T). The organization and staffing requirements are contained in Attachment 2. A permanent Industry Chair is authorized as deemed necessary.

The Navy, Air Force, and Marine Corps will detail operator/user personnel to the JAST Program Office on a PCS basis to represent their parent Service. Ten accredited Joint Duty billets will be established for the JAST Program and manned as indicated in Attachment 2, pg 9-11. One of the ten billets will alternate between the Director and Deputy Director positions. The Services will also establish a Requirements Support Group which will be made up of operational experts from the Services who will execute the Strategy-To-Task-To-Technology process and provide continuing operational expertise to the operators/users resident in the JAST Office.

For Air Force personnel assigned to the JAST program, the JAST Program Director will aggregate his "Definitely Promote" and "Promote" ratings under SAF/AQ.

### **JOINT OPERATING PROCEDURES (JOPS)**

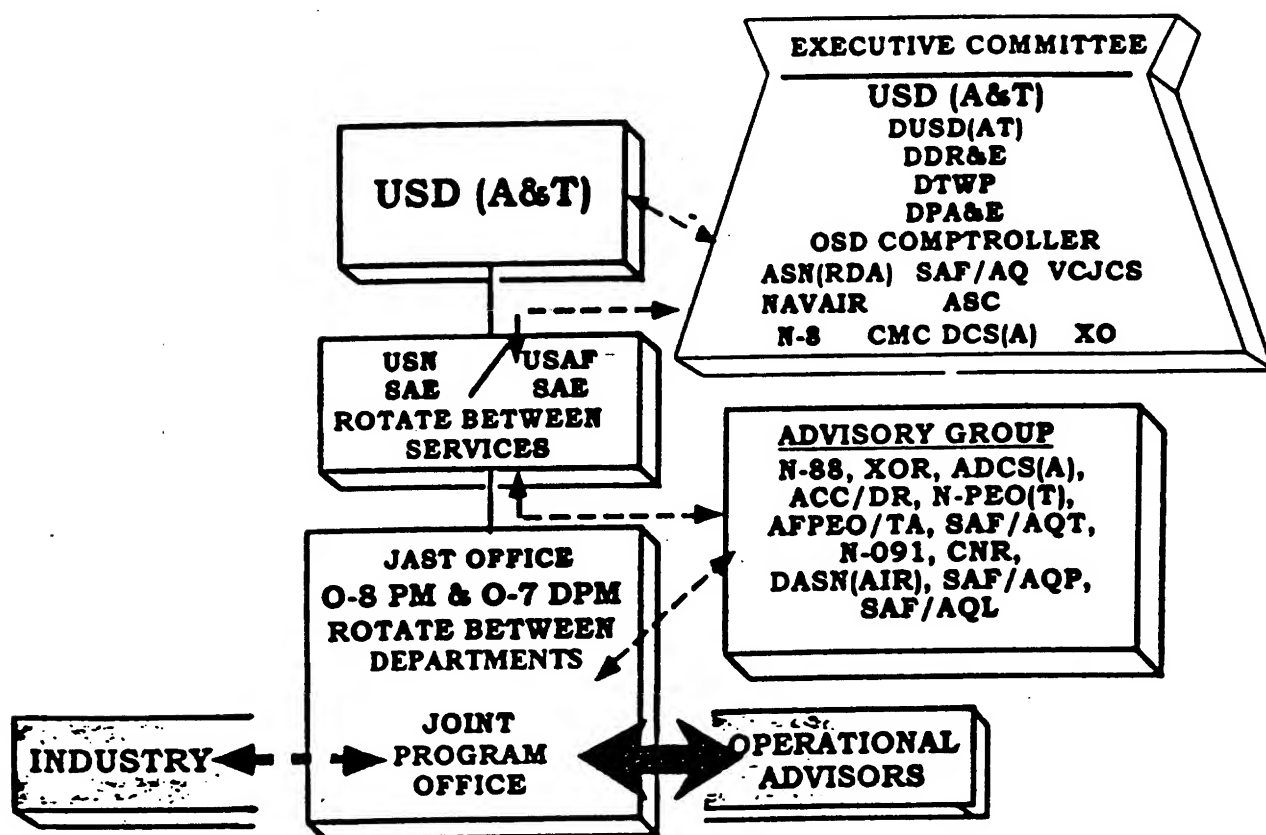
If deemed necessary by the JAST Program Director, the JAST Program Office will identify and describe detailed procedures and agreements to carry out significant aspects of the joint program. The JAST Program Director and designated officials in each Service will negotiate and implement required JOPs.

### **JAST PROGRAM CHARTER REVIEW AND UPDATES**

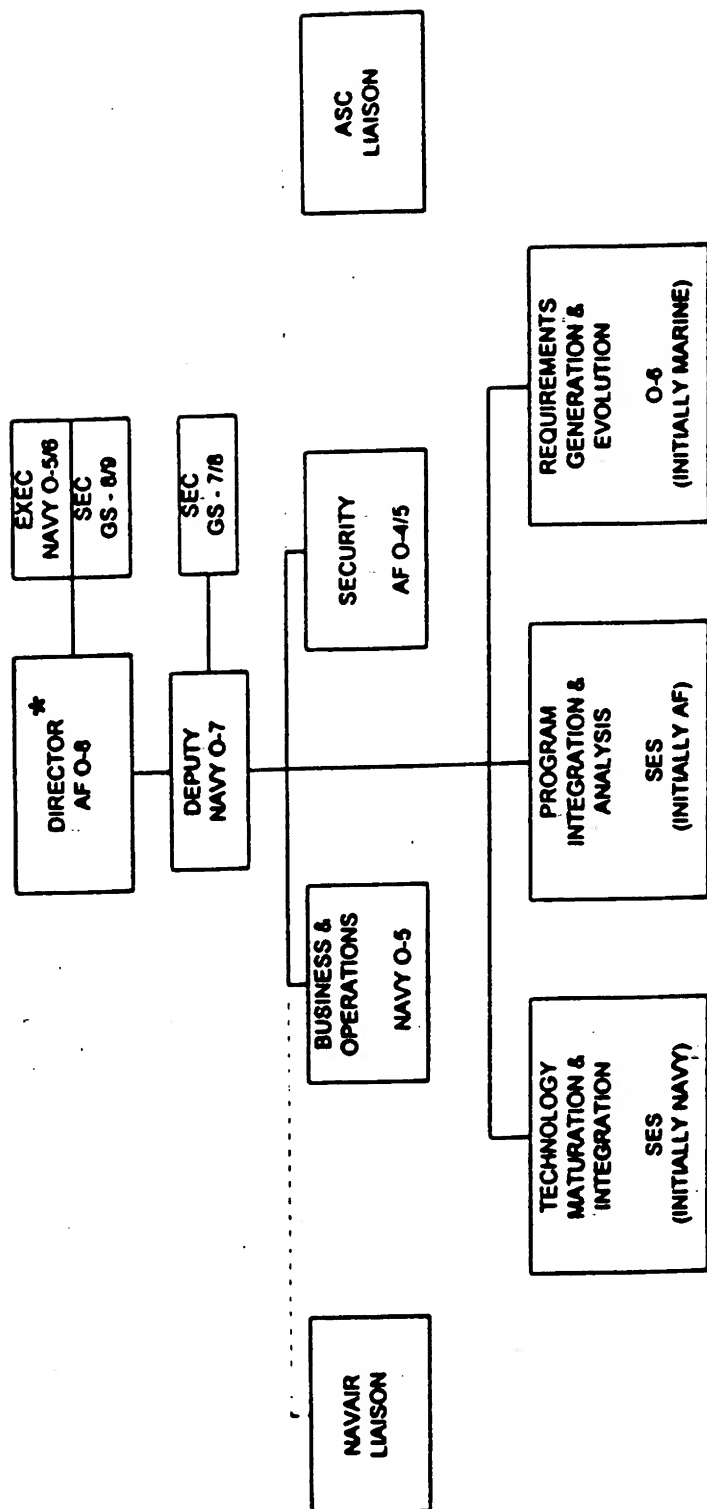
The JAST Program Director will review the charter and issue revisions as required. Modifications require USD(A&T) approval.



# ORGANIZATIONAL RELATIONSHIPS



## INITIAL JAST ORGANIZATION



39 - 50 TOTAL  
(EXCLUDING NAVAIR/ASC MATRIX SUPPORT)

## NOTE

ORGANIZATION REFLECTS "STRUCTURED" RELATIONSHIPS FOR PERSONNEL PLANNING PURPOSES ONLY. JAST WILL ACTUALLY OPERATE AS A FLEXIBLE, IPT ORIENTED GROUP(S), WHERE ROLES AND RELATIONSHIPS MAY CHANGE AS A FUNCTION OF PRODUCT EMPHASIS AND PROJECT DIRECTOR OBJECTIVES.

KEY POSITIONS (SES AND SENIOR OFFICER) SHOULD BE BALANCED BETWEEN THE SERVICES

TEN JOINT DUTY BILLETS REQUIRED. \* DENOTES JOINT BILLET

# **JSF PROGRAM WHITE PAPER**

March 1996

## **Program Purpose**

The Joint Strike Fighter (JSF) Program, formally the Joint Advanced Strike Technology (JAST) Program, is the Department of Defense's focal point for defining affordable next generation strike aircraft weapon systems for the Navy, Air Force, Marines and our allies. The focus of the program is affordability -- reducing the development cost, production cost, and cost of ownership of the JSF family of aircraft. The program is accomplishing this by facilitating the Services' development of fully validated, affordable operational requirements, and lowering risk by investing in and demonstrating key leveraging technologies and operational concepts prior to the start of Engineering and Manufacturing Development (E&MD) of the JSF.

The JSF will fulfill Service needs as follows:

- USN -- first day of war, survivable strike fighter aircraft to complement F/A-18E/F
- USAF -- multirole aircraft (primary-air-to-ground) to replace the F-16 and A-10
- USMC -- STOVL aircraft to replace the AV-8B and F/A-18
- United Kingdom Royal Navy -- STOVL aircraft to replace the Sea Harrier

## **Background**

The Secretary of Defense's Bottom-up Review (BUR) in FY 1994 acknowledged the Services' need to affordably replace their aging strike assets in order to maintain the nation's combat technological edge, and consequently established the JAST Program. The program is jointly manned and funded. Subsequent FY 1995 legislation merged the Advanced Research Projects Agency (ARPA) ASTOVL program with the JAST Program, and ARPA now also provides personnel and funding for JAST Program execution. The United Kingdom Royal Navy is committing \$200 million to the JAST Program, extending a collaboration begun under the ARPA ASTOVL program. Foreign participation is expected to increase.

## **Program Process**

The JAST Program office is facilitating the Services' requirements definition efforts. Integrated Product Teams of warfighters and technologists use the disciplined strategy-to-task process supported by an extensive underpinning of Modeling, Simulation and Analysis to help the Services develop a set of requirements with maximum focus on

jointness consistent with technology's ability to support them affordably. Industry is a full participant on these teams. This emphasis on early interaction of the warfighter and the developer ensures cost versus performance trades are made early when they can most influence weapon system cost.

The first formal product of the requirements definition process was the Joint Initial Requirements Document (JIRD), signed by all of the participating Services and briefed to the Joint Requirements Oversight Council (JROC) in summer 1995. The JROC endorsed the JAST process and "family of aircraft" strategy and emphasized "the great potential towards achieving an affordable solution to meet our joint warfighting capability." Completion of a Joint Operational Requirements Document (JORD) is anticipated in 1998.

Numerous Technology Maturation demonstrations in leveraging areas are being pursued to reduce risk prior to entering E&MD and lower the Life Cycle Cost (LCC) of the JSF. The demonstration results are made available to all program industry participants. Achievement of affordability objectives for the prime contractors' preferred weapon system concepts depends on availability of these technologies for platform incorporation in E&MD and production. Examples of successful demonstrations conducted to date include carrier suitability of tailless configurations; improved capabilities in an advanced penetration weapon; virtual manufacturing as means of reducing manufacturing cycle time and cost, validated by a F-15 real-world application; and avionics demonstrations of shared apertures, Virtual Avionics Prototypes, and software common applications. Other, ongoing, demonstrations that will quantify weight and cost savings include integrated aircraft subsystems; low-cost multi-function array; and innovations in structures materials, design and manufacturing processes.

### **Program Status**

The program is nearing completion of its Concept Development Phase. This phase focused on (1) developing designs that take advantage of the "family of aircraft" concept and (2) defining the necessary leveraging technology demonstrations that will lower risk prior to entering E&MD of the JSF. The "family of aircraft" concept allows a high level of commonality while satisfying unique service needs. Concept Development Phase efforts have ratified the conclusion of the program's competing weapon system contractors that a family of aircraft can meet tri-service needs, with overall significant LCC savings. This approach brings with it the cost benefits of a common Depot, commonly supported

logistics trail, and increased joint service interoperability.

### **Program Plans**

The Concept Demonstration Phase commences in early FY 1997 following the competitive downselect from three potential weapon system concept teams to two. Each winning contractor team defines those demonstrations it believes are crucial for its concept vis a vis providing concept assessment and insuring a low risk technology transition to E&MD. This phase will feature flying concept demonstrators, concept unique ground and flight demonstrations, and continued refinement of the contractors' preferred weapon system concepts. Specifically, the two winning contractor teams will demonstrate commonality and modularity, STOVL hover and transition, and low speed handling qualities of their concepts. Pratt and Whitney will receive a contract to provide hardware and engineering support for the Weapon System Concept Demonstration efforts. A contract will also be awarded to General Electric for technical efforts related to development of an alternate engine source for production. Risk mitigating Technology Maturation demonstrations will continue as well.

The Concept Demonstration Phase acquisition strategy has several advantages:

- (1) maintains the competitive environment prior to E&MD and provides for two different STOVL approaches and two different aerodynamic configurations
- (2) demonstrates the viability of a multi-service family of variants; high commonality and modularity between CTOL, CV, and STOVL variants is expected
- (3) provides affordable and low risk technology transition to the JSF E&MD in FY 2001.

### **Summary**

In conclusion, the Services remain strongly committed to this joint program to develop an affordable solution to their future strike warfare needs – the Joint Strike Fighter. The government and industry team is converging on a design concept for a family of strike aircraft weapon systems which, coupled with the other technology “building blocks,” will yield continued technological superiority for our warfighters but much more affordably. In order to meet the fiscal and threat demands of the next century, the Department of Defense clearly recognizes we must “neck-down” our tactical air forces with a focus on jointness and commonality. The Joint Strike Fighter will make that goal achievable.